5.0 PHASE I ARCHAEOLOGY SURVEY WORK PLAN

5.1 Introduction

The recommended Bridge 362 at Chipman's Pond Phase I archaeology survey fieldwork is predicated on the combined results of the background research and the geomorphology reconnaissance discussed above, and includes survey for only historic period archaeological resources. The majority of the archaeological APE is disturbed. These disturbances have extensively interrupted or obliterated the subsurface stratigraphic record where any pre-contact period archaeological resources would have been preserved. In addition, the presence of natural, old (throughout the Holocene) wetland soils that are not typically associated with pre-contact period habitation, precludes the potential for significant pre-contact period archaeological remains in the archaeological APE. The presence of paving in the form of driveways, a parking pull-off, and road berms, further indicates disturbance and makes the subsurface inaccessible in parts of the archaeological APE. The presence of the earthen dam and other large-scale dumping episodes (e.g., large pieces of concrete) further speaks to the lack of potential to identify pre-contact period archaeological remains in the Bridge 362 archaeological APE. No portion of the archaeological APE, as it is currently configured, retains undisturbed soils of appropriate age to contain *in situ* pre-contact period archaeological resources; therefore, testing for pre-contact period resources is not recommended.

However, many of the historic period disturbances (e.g., construction of the earthen dam, construction and operation of the mill[s]), which preclude finding pre-contact period resources in the archaeological APE are themselves potentially significant. Due to the presence of historic ruins, and the location's perceived associations with historic events and/or persons important to local history, focused Phase I archaeological survey for historic period archaeological resources is recommended in the Bridge 362 archaeological APE. The major known historic resources associated with the project include: Chipman's Potato House, Old Christ Church, Lowe's Lakeview Campground, and Chipman's Mill(s) including the dam and spillway. Of these, only Chipman's Mill(s) has the potential to contain archaeological resources that may be directly affected by the proposed bridge and roadway construction. It is for this reason that the Phase I survey will focus on the various mills and mill operations that took place in the vicinity of Bridge 362.

A summary of the proposed Phase I survey for the Bridge 362 at Chipman's Pond project is presented in Table 2, with details presented below. Minor deviations from the

Table 2.
Proposed Phase I Archaeological Survey of Bridge 362 at Chipman's Pond

Portion of APE	Testing Methodology	Expected Results	Justification
North Side of Chipman's Pond Road (S 465)			
Sta. 2+75 to 4+50	no testing	none	paved driveways; roadway berm; landscaping; ditching; disturbed from excavation for roadway; no soils of appropriate age to contain pre-contact period archaeological resources; no historic structures present or identified on historic mapping
Sta. 4+50 to 5+25	photography, mapping, description	recordation of concrete spillway structure	concrete spillway structure; no soils of appropriate age to contain pre-contact period archaeological resources; structure over 50 years of age
Sta. 5+25 to 10+00	photography, mapping, description	recordation of earthen dam; determination of eligibility	earthen dam; no soils of appropriate age to contain pre-contact period archaeological resources; gravel/paved parking pull-off; presence of large trees; dam is over 50 years of age
Sta. 10+00 to 15+25	no testing*	none	Old Christ Church; narrow archaeological APE within limits of disturbed areas; paved driveways; roadway berm; landscaping; ditching; underground utilities; disturbed from excavation for roadway; no soils of appropriate age to contain pre-contact period archaeological resources; church (NRHP-listed structure) not located in the archaeological APE
South Side of Chipman's Pond Road (S 4650)			
Sta. 2+75 to 4+50	no testing	none	paved driveways; roadway berm; ditching; disturbed from excavation for roadway; no soils of appropriate age to contain pre-contact period archaeological resources; no historic structures present or identified on historic mapping
Sta. 4+50 to 4+80	photography, mapping, description	recordation of mill remains; determination of eligibility	concrete mill remains; no soils of appropriate age to contain pre-contact period archaeological resources; presence of large trees and concrete rubble; mill is over 50 years of age
Sta. 4+80 to 5+25	photography, mapping, description	recordation of concrete wheel pit and overflow structures	concrete wheelpit and overflow structure; no soils of appropriate age to contain pre-contact period archaeological resources; structure over 50 years of age

Portion of APE	Testing Methodology	Expected Results	Justification
Sta. 5+25 to 6+00	no testing	none	old wetland soils; no soils of appropriate age to contain pre-contact period archaeological resources; no historic structures present or identified on historic mapping; disturbed; large trees present including cyprus
Sta. 6+00 to 7+75	photography, mapping, description	recordation of earthen dam; determination of eligibility	earthen dam and old wetland soils; no soils of appropriate age to contain pre-contact period archaeological resources; fill present; disturbed; dam is over 50 years of age
Sta. 7+75 to 9+00	two backhoe trenches	identification and recordation of sawmill and/or carding machine remains, if present; determination of eligibility, if remains found	old wetland soils; Rust Pond; no soils of appropriate age to contain pre-contact period archaeological resources; potential location of sawmill and/or carding machine
Sta. 9+00 to 13+00	no testing	none	roadway berm; ditching; disturbed from excavation for roadway; no soils of appropriate age to contain pre-contact period archaeological resources; no historic structures present or identified on historic mapping
Sta. 13+00 to 15+25	no testing	none	Chipman's Potato House; narrow archaeological APE within limits of disturbed areas; roadway berm; disturbed from excavation for roadway; no soils of appropriate age to contain pre-contact period archaeological resources; potato house (NRHP-listed structure) not located in the archaeological APE
West Side of Old Christ Church Road (S 465A)			
Sta. 0+00 to 1+00	no testing	none	roadway berm; ditching; disturbed from excavation for roadway; no soils of appropriate age to contain pre-contact period archaeological resources; no historic structures present or identified on historic mapping
East Side of Old Christ Church Road (S 465A)			
Sta. 0+00 to 1+00	no testing	none	roadway berm; disturbed from excavation for roadway; no soils of appropriate age to contain pre-contact period archaeological resources; no historic structures present or identified on historic mapping

* Currently, there are only minor proposed impacts to the Old Christ Church property, which is already disturbed by ditching and buried utilities; however, if new buried utilities are planned (to connect existing utilities with those at rear of property), archaeological survey related to potential unmarked graves may be necessary. Delineation of unmarked graves is not included in this proposal, since utility plans are not final.

recommended survey methods may be necessary as the fieldwork for the project progresses, and as additional information is gathered.

5.2 Research Design

Due in part to the Cultural Resource Management process, much of the mill research in Delaware (and elsewhere) tends to be focused on the details of a specific mill, although some limited comparative data may be incorporated into the research. If there is a standing mill, architectural descriptions and reconstructions of the milling process dominate the discussion. If there are only archaeological remains, the description and interpretation of features is given priority. In addition, the mill is too frequently interpreted in purely technological terms that speak to the type of motive power, how much power was produced, and the output of the mill. There is often only marginal consideration of the relationship of the mill to the landscape and community, and only rarely is the broader community role of the mill considered. Mills were often the dominant landmark and/or touchstone of a community. Especially in Delaware, where large mill ponds were required by topography, mills and their associated dams, ponds, and races often dictated the cultural landscape. Living members of the community may not have any idea about what type of motive power was used at a mill, but they can recall spending the day at the mill while their father's grain was being processed, hearing heated political debates or local news, and swimming in the mill pond or fishing in the tail race.

For Chipman's Mill, reportedly constructed *ca.* 1884, previous historic research and preservation efforts have focused on the gristmill building, ignoring the mill complex (ie., dam, spillway, race) as a whole, the earlier sawmill and carding machine operations, and the broader community impacts of the mill. The history of this mill and its architectural details, which were the basis of the mill's 1977 nomination to (Norton and Nelson 1977) and 1978 listing in the NRHP, are inconsistent with recent research and the visible archaeological remains, and the mill building lost its architectural integrity when it was intentionally burned in 1987. Information on the final technology of the mill was likewise lost when the machinery of the mill was salvaged and sold as scrap metal.

Due to the burning of the mill superstructure, the NRHP listing, which is based on architectural integrity, needs to be re-evaluated. Phase I archaeological survey of the mill site is recommended in order to address the question of NRHP eligibility under Criterion D. In addition, it is appropriate to reevaluate the resource under Criteria A, B, and C, as well as consider the possibility of the mill as a contributing element in a historic district or landscape. The study of the mill(s) once located within the Bridge 362 archaeological APE provides the

opportunity to broaden the historic significance of mills to include more than physical descriptions of buildings and output, to engage and involve the local community in a publicly funded project, and to provide DelDOT with a county-wide mill context that will provide the tools for the management of mill research associated with future DelDOT projects in a more efficient manner, rather than continuing to evaluate each mill individually.

5.3 Research Tasks

The proposed Phase I archaeological survey for the Bridge 362 at Chipman's Pond project will include the following tasks:

1. Chipman's Mill Mapping -- Clearing of vegetation from around the visible mill remains will be undertaken in order to provide a clear view of the remains. Subsequent to the clearing, the mill remains will be described, photographed, and mapped. This task is necessary in order to re-evaluate the mill's individual NRHP eligibility and/or its potential to be a contributing element to a historic district or landscape, should one be proposed. The information recovered from the physical archaeological remains should provide insights into the evolution of the mill's construction, operations, and renovations through time, including a possible construction date/date range for the last mill.

2. Houston Sawmill Identification -- Due to the potential for remains of an early sawmill associated with Robert Houston to be located within the archaeological APE, two backhoe trenches will be excavated in the vicinity of the Rust Pond. The Rust Pond is mentioned in historic records and by local informants as the probable location for the Houston Sawmill. Deep fill associated with the earthen dam and roadway construction, as well as dumped construction materials prohibit the use of hand excavations in the area surrounding the Rust Pond. The high water table in the area may pose a problem even for the mechanical excavations. If archaeological remains of the sawmill are identified, they will be recorded, described, mapped, and photographed as safety precautions allow. The information recovered from any physical archaeological remains of the sawmill should provide insights into the operations of an eighteenth century sawmill and help to define the spatial patterning of mills and their usage through time in the vicinity of Bridge 362.

3. Sussex County Mill Context Preparation -- The preparation of a county-wide historic mill context has several objectives. The first objective would be to provide DelDOT with a comprehensive document that addresses the research questions appropriate for mills during consideration within the Section 106 context. This information would include eligibility requirements and management recommendations. This document could be the first step in a coordinated effort between DelDOT and the Delaware SHPO to construct a programmatic agreement that would help to streamline the Section 106 process when mills are present in future project areas, and possibly provide a template for a statewide context. Secondly, the context will provide a means to record and preserve information about specific mill resources that is being irretrievably lost through population influx and development (beyond the purview of Section 106) in the county, as well as the aging and deaths of persons with direct knowledge of the mills. Specific information on individual mills present in Sussex County through time would be recorded. Archival research, informant interviews, and traditional recordation and photographic techniques, as well as Geographic Information Systems (GIS) would be some of the methods used to create a county-wide data base on the individual mills. GIS would be especially effective for use in the preparation of a mill context because it is a system that allows easy maintenance and retrieval of large quantities of data, manipulation of spatial and related tabular data, performance of complex spatial analysis, and rescaling. GIS is also a system which can be transformed so that non-professionals can easily use the data, and the data can be served over the world-wide web for easy access.

4. Historic Documentary Search -- Additional archival research will be necessary as the Phase I survey fieldwork is accomplished and the mill context is prepared. Several sources which may be useful are newspaper accounts from the 1933 flood and its aftermath, as well as United State Department of Agriculture (USDA) aerial photographs beginning in the 1930s and working up to the present. Other possible avenues of archival research that are identified will be pursued.

5. Chipman's Pond Reunion -- A reunion event would be planned for the entire community that should be widely advertised, with much advance notice, perhaps in conjunction with Delaware Archaeology Month 2005. The reunion would reach

out to long-time residents of the area, while also educating newer arrivals, and the general public. The event might include an afternoon gathering in the project area with a fish fry (a fish fry was a community event often held when millponds were lowered for mill maintenance, making it easy to seine fish from the reduced ponds); tours of the archaeological mill remains and Old Christ Church; opportunities for taped interviews with informants who wish to contribute stories and information about the area; and display boards with information about the project, historical images, and maps. The goal of the gathering would be to directly engage the interested public in local historic preservation efforts by employing their knowledge and perspectives in the Section 106 process. Advertising for the event would encourage informants to bring photographs or other artifacts of the Chipman's Mill area, as well as encourage them to share their remembrances. Informant interviews would not be restricted or steered toward structural/technological data, but rather, would be wide-ranging in scope hoping to include the non-tangible aspects of the mill's contributions to the community. The tapes and transcripts resulting from informant interviews would be offered to the Oral History Collection at the Delaware Agricultural Museum for permanent curation. Colorful name tags for informants, certificates of appreciation, and brochures or other written materials could also be incorporated into the festivities. The local community may not fully understand the intricacies of Section 106 eligibility requirements, but they will recognize the destruction of the final reminders of an important local landmark by a DelDOT project. By specifically reaching out to the affected community, DelDOT can demonstrate that it recognizes the importance of Chipman's Mill to the local community.

5.4 Research Products

Two major reports will result from the proposed Phase I archaeological survey, as described above. The first report will be a concise Phase I archaeological survey report, which will contain all of the appropriate information necessary for DelDOT to fulfill its Section 106 obligations for the proposed roadway project. Information in the survey report will include background information, an explanation of research methods, the results of the archaeological survey as they pertain to the NRHP eligibility of identified resources, and recommendations. Tables, maps, photographs, and illustrations will be used as appropriate. The *Guidelines for*

Architectural and Archaeological Surveys in Delaware (Delaware State Historic Preservation Office 1993) will be followed in preparing the Phase I archaeological survey report.

The second report will be the Sussex County mill context. As stated previously, the mill context is an essential building block to efficiently continue future mill research in Delaware, provide a unique database about a single resource type, and serve as an unequaled management tool for DelDOT. Both the mill context and the Phase I archeological survey reports will document the expected technological and historical data, while refraining from overly emphasizing these points. Both reports will incorporate discussions about the many roles of the mills in the lives of the individuals and communities they served.

By using the research methods and preparing the reports described above, DelDOT and Skelly and Loy would assure compliance with the strict requirement of Section 106, while at the same time, address the broader spirit of public participation and involvement and provide a useful management tool for future DelDOT sponsored research.